PULSER SYSTEM

Hersey Meters

I. Overview

The Hersey Meters Pulser System consisting of both an FT1, FT2, or FT3 frequency transmitter and a corresponding Pulser Unit allows meter flow to be electronically transmitted to any device that can utilize a pulsing signal. This device has the ability to be used as a "Dry Contact Pulse" or a "Voltage Pulse" system.

II. Environmental Specifications

Power Requirements	7 – 32 VDC
Consumption	50mA MAX
Operating Temperature	-40° - 140°F
Dimensions (Pulser Unit)	3.8"L x 2.2" W x 1.8" H
Wire Specification	22 Gauge

III. Installation Instructions

1. Connecting the FT to the Meter

FT1 With the register installed in the register box[1], place the FT1 with the label facing up (shown in Figure 1) directly beneath the register. Slide the FT1 until it lies flat against the bottom of the register. The wire extending 1from the FT1 should be routed in the slot provided in the base of the register box.

NOTE: In most cases, the FT1 should arrive pre-assembled within the register box.

Place the tabs of the register box insert into the four corresponding tabs of the register box. Make sure the meter locking tabs are on the bottom and the locking pin holes of the insert and register box are aligned. The aluminum clamp on the underside of the FT1 should be exposed as shown in Figure 2. Connect the register to the meter and install the locking pin.

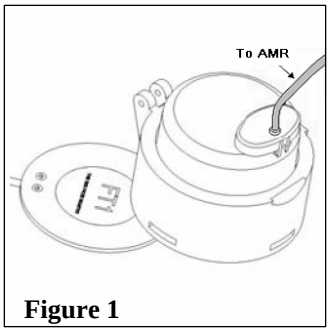


Figure 1

FT2 & FT3 The FT2 & FT3 are factory installed within the sealed Translator® Register. Simply connect the register to the meter using the existing Translator® clamp band[2] or register box.

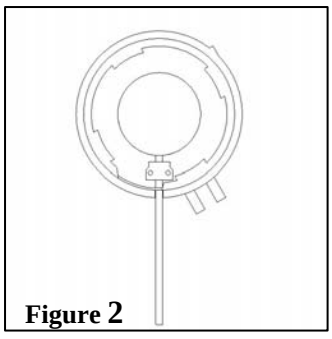


Figure 2

2. Mounting the Pulser Unit

The Pulser Unit comes standard with opposing flanges equipped with four 0.20"Ø mounting holes to allow for a wide variation of wall, panel, or box mount configurations. The hole locations are shown above in Figure 3.

Note: The Pulser Unit is a live voltage, electronic device with exposed terminals. Therefore it is not submersible or splash-proof and must bemounted in a dry environment or water tight enclosure. Ideally the Pulser Unit should be mounted in a locked control box to prevent health hazards.

3. Wiring the Pulser Unit

Connecting to the meter Connection to the Pulser Unit from the frequency Transmitter (FT) at the meter is made via the three pole screw terminal in the lower right labeled "METER". The red wire from the FT is the positive wire, the black or blue wire is the negative wire, and the third wire is the signal wire. For the FT1, the FT wire extends from the underside of the register housing, as seen in Figure 2. For the FT2/FT3, the FT wire extends from the black well on the upper left of the register face, as seen in Figure 4.

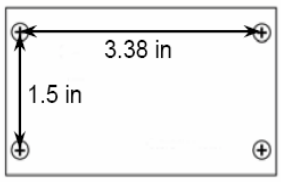


Figure 3

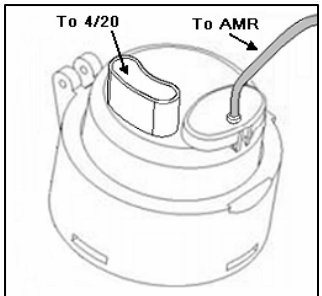


Figure 4

NOTE: One Pulser Unit is required for every measuring element (i.e. every register) on a meter.

4. Connecting to the Control System

Connection to your control system is made via the six pole screw terminal block located on the top of the Pulser Unit and labeled "SYSTEM" (shown in Figure 5). The two terminals on the left connect to the 7 – 32 VDC supply. The next three terminals are the pulse output contacts. The divide by count is as follows, and can also be seen in Figure 5.

A=Divide by 2 B=Divide by 16 C=Divide by 128

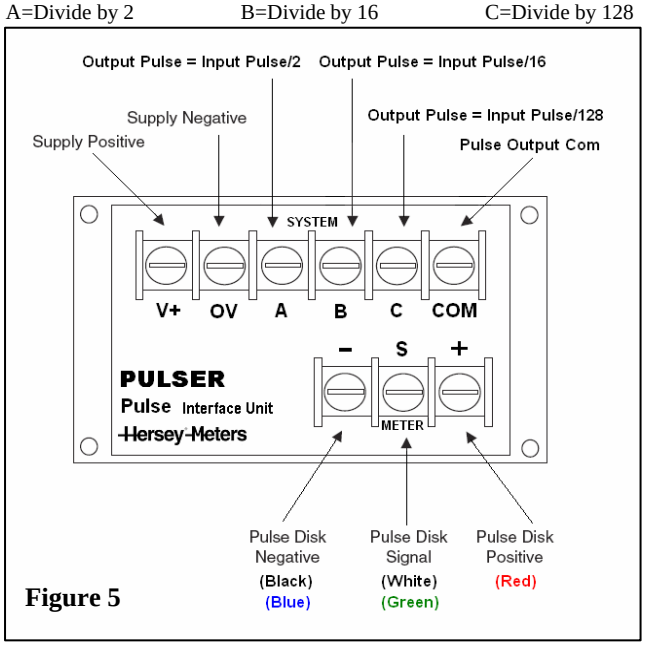
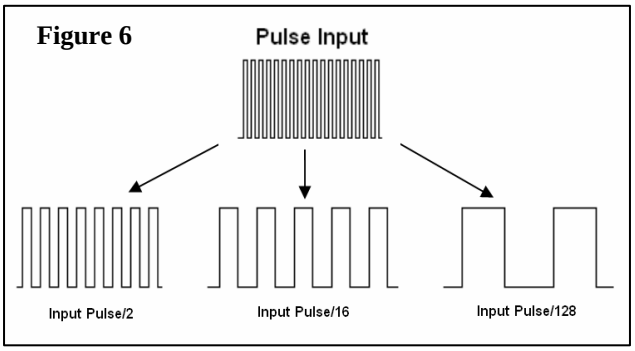


Figure 5

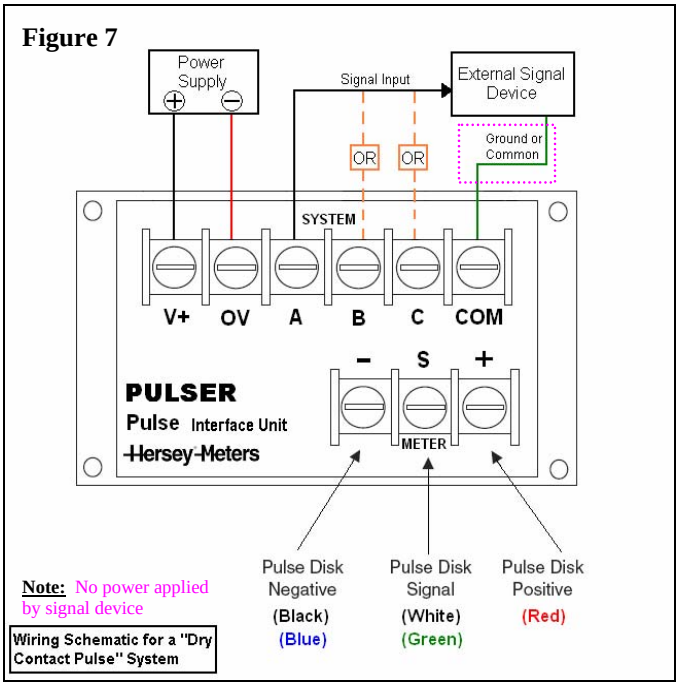
A sample of the type of output that can be obtained by each of the three terminals can be seen below in Figure 6.

Figure 6



To wire the Pulser Unit to achieve a "Dry Contact Pulse" scenario follow the wiring schematic in Figure 7. The ground/common from the external signal device is connected to the COM terminal of the Pulser Unit. The signal input into the control system will come from either terminal "A", "B", or "C". The Pulser Unit must be externally powered by a 7-32 VDC power supply, which is connected to the "V+" and "0V" terminals.

Figure 7



To wire the Pulser Unit to achieve a "Voltage Pulse" scenario follow the schematic in Figures 8 and 9, depending on the number of power sources that will be used. For wiring with only one power source where the power is shared from the external power supply, follow Figure 8 as follows. A jumper from the positive terminal of the 7-32 VDC power supply is connected to the "COM" terminal of the Pulser Unit. The "Voltage Pulse" can then be read by connecting a wire from either terminal "A", "B", or "C" and a jumper wire from the 0V terminal of the Pulser Unit. This "Voltage Pulse" is illustrated in Figure 8 as a Voltmeter.

If more than one power source will be used to power the Unit, follow the schematic in Figure 9 as follows. Connect the power from the control system to the "COM" terminal of the Pulser Unit. The signal input is then connected to either terminals "A", "B", or "C" depending on the output desired. The external power supply is then connected to the "V+" and "0V" terminals of the Pulser Unit.

Figure 8

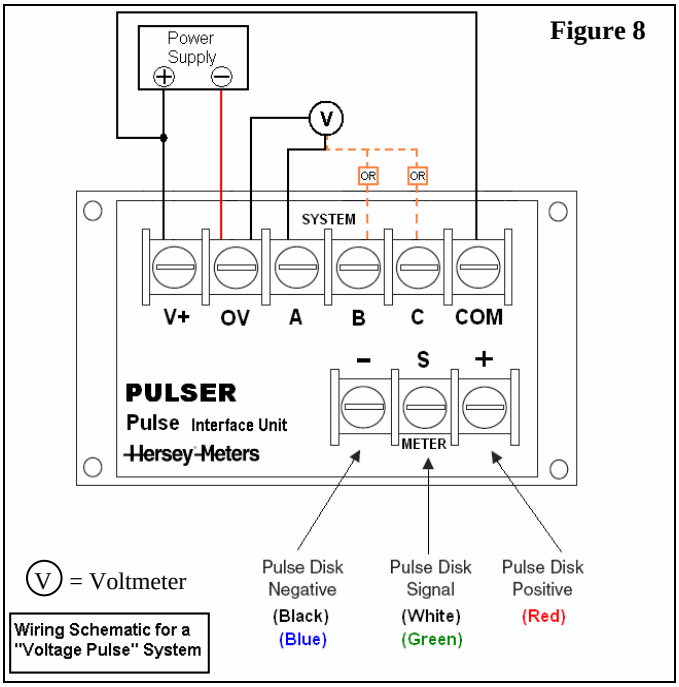
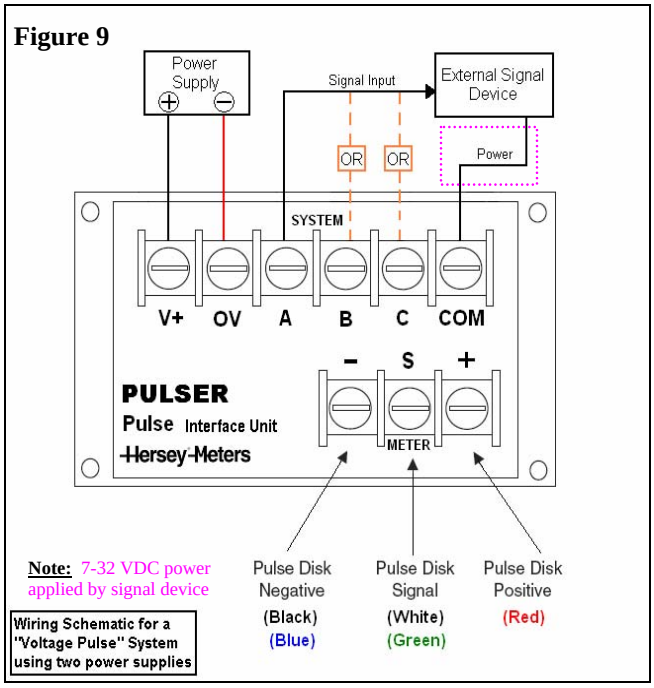


Figure 9



Tables of information regarding the expected pulse outputs per meter type and size can be located on our website at:

http://www.herseymeters.com/prod_amr_pulserunit.html

[1] The FT1 utilizes a non-standard register box which is not interchangeable with other Hersey register boxes (plastic mounting ring) and must be purchased from Hersey Meters.
[2] Clamp bands for visual read MVR register are not compatible with Translators. MVR sizes 3" and above may require conversion for use with Translators. Contact a Hersey Meters customer service representative for more information.